

IN THE CLAIMS:

Please cancel Claims 1-9 without prejudice to or waiver of the subject matter contained therein.

Please amend Claims 10, 12, and 14-18 and add new Claims 22-34 as follows. All claims in the application are being reproduced below in accordance with U.S. Patent and Trademark Office practice.

Claims 1-9 (Cancelled)

10. (Currently Amended) The linear motor according to claim 22 [[1]], wherein said metal film is formed of a nonmagnetic material.

11. (Original) The linear motor according to claim 10, wherein said metal film contains nickel.

12. (Currently Amended) The linear motor according to claim 22 [[1]], wherein said metal film contains gold.

13. (Original) The linear motor according to claim 10, wherein said metal film has a thickness of 10 μm to 30 μm .

14. (Currently Amended) The linear motor according claim 22 [[1]], wherein said metal film is formed by plating.

15. (Currently Amended) The linear motor according to claim 22 [[1]], wherein said metal film has been subjected to mirror polishing.

16. (Currently Amended) The linear motor according to claim 22 [[1]], wherein said metal film is grounded.

17. (Currently Amended) A stage apparatus comprising:
the linear motor according to claim 22 [[1]]; and
a movable stage integrally formed with said movable element of the linear motor.

18. (Currently Amended) A stage apparatus comprising:
the linear motor according to claim 22 [[1]];
a stage moved by the linear motor;
a chamber surrounding and hermetically sealing said stage; and
a vacuum mechanism for evacuating said chamber.

19. (Original) An exposure apparatus comprising the stage apparatus according to claim 18.

20. (Original) The exposure apparatus according to claim 19, wherein the exposure apparatus is an electron beam exposure apparatus.

21. (Withdrawn) A device manufacturing method comprising:
preparing the exposure apparatus according to claim 19;
applying a photosensitive agent to a substrate;
exposing the substrate by using the exposure apparatus; and
developing the exposed substrate.

Please add Claims 22-34 as follows:

--22. (New) A linear motor comprising:
a coil;
a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil; and
a metal film arranged in at least a portion between said coil and said magnet.

23. (New) The linear motor according to claim 22, wherein said coil is covered with a jacket forming a flow path through which a refrigerant flows, and said metal film is provided at least at a surface of said jacket which faces said magnet.

24. (New) The linear motor according to claim 23, wherein said metal film comprises one of nickel and gold, and a surface of said metal film is subjected to mirror polishing.

25. (New) The linear motor according to claim 23, wherein said coil is supported by a yoke through said jacket.

26. (New) The linear motor according to claim 22, wherein said metal film is provided at least at one of a stator and a movable element, said stator comprising said coil and said movable element comprising said magnet.

27. (New) The linear motor according to claim 26, wherein said movable element comprises a support member supporting said magnet and said metal film is provided at least at a portion of said support member which faces said coil.

28. (New) The linear motor according to claim 26, wherein said movable element comprises a support member supporting said magnet and said metal film is provided at least at one of a side of said support member which faces said coil and a side of said support member which does not face said coil.

29. (New) The linear motor according to claim 26, wherein said stator comprises a jacket forming a flow path through which a refrigerant flows and said coil is covered with said jacket.

30. (New) The linear motor according to claim 29, wherein said metal film is provided at a surface of said jacket.

31. (New) The linear motor according to claim 30, wherein said metal film comprises one of nickel and gold, and a surface of said metal film is subjected to mirror polishing.

32. (New) A linear motor comprising:
a coil;
a magnet, one of said coil and said magnet moving relative to the other of said coil and said magnet by flowing a current to said coil;
a support member supporting said magnet; and
a metal surface subjected to mirror polishing and arranged in at least a portion between said coil and said support member.

33. (New) The linear motor according to claim 32, wherein said metal surface is provided at a side of said support member which faces said coil.

34. (New) The linear motor according to claim 32, further comprising a yoke supporting said coil, said metal surface being provided at said yoke.--